

Fig. 22. *Hemipholis microdiscus*, nobis, spines and tentacle-scales of arm, highly magnified.

23. *Ophiactis affinis*, nobis, from above, $\times 8$.

PLATE XI.

24. *Ophiactis affinis*, nobis, from below, $\times 8$.

25. *Ophiacantha Dallasi*, nobis, thorns of the disk, magnified.

26. " " " from above, $\times 8$.

27. " " " from below, $\times 8$.

28. *Ophiothrix koreana*, nobis, from above, $\times 8$.

29. " " " from below, $\times 8$.

30. " " " spine, highly magnified.

31. " " " stump from the disk, highly magnified.

32. " " " arm hook, highly magnified.

33. *Ophiothela Verrilli*, nobis, from above, $\times 8$.

34. *Hemipholis microdiscus*, nobis, nat. size.

35. *Ophioglypha sculpta*, nobis, nat. size.

Descriptions of New Hemiptera. (I.)

By F. BUCHANAN WHITE, M.D., F.L.S.

[Read November 7, 1878.]

THE majority of the insects herein (and probably hereafter) to be described, were taken by my friend Professor J. W. H. Trail during his fruitful exploration of the Amazon region, in 1873-1875; and his localities refer to the country drained by that river and its tributaries. The types of all the species mentioned are in my collection. The subjoined tabular list of two new genera and seventeen new species comprises what is contained in this paper.

Paryphes pontifex.

Fibrenus bullatus.

Largus lentus.

Ischnodemus inambitosus.

Pamera pagana.

Lethæus lepidus.

Helenus hesiformis.

Acanthocheila abducta.

Hydrometra metator.

Velia vivida.

— *virgata*.

Neovelias Trailii.

Microvelias mimula.

Hydrobates regulus.

Limogonus? lotus.

— ? *lubricus*.

Pelocoris procurrens.

COREIDÆ.

1. PARYPHES (SUNDARUS) PONTIFEX, n. sp. Supra et subtus cum antennis pedibusque æneo-viridis; lobo postico pronoti scutelloque croceis; hemelytris atris opacis, corii marginibus angustis costali apicalique, et commissura clavi flavescentibus; membrana nigro-brunnea;

rostrum tarsisque nigris. Lobo postico pronoti utrimque in alas magnas rotundatas sursum vergentes dilatato. ♂ long. 18, lat. 5 millim.

Hab. Brasiliam borealem. (Lago cerrado, Rio Jurua, Oct. 30, 1874, *J. W. H. Trail.*)

Allied to *Paryphes regalis*, Westw., and *P. flavicollis*, Sign., but differing in coloration, shape of the pronotum, &c.

LYGÆIDÆ.

2. *FIBRENUS BULLATUS*, n. sp. Obscure castaneo-brunneus opacus, capite et margine antico pronoti ochraceo-hirsutis; pronoti marginibus lateralibus et postico flavis, linea longitudinali centrali castanea; corii marginis antici dimidio basali, margine apicali (angulo intimo excepto), necnon linea prope suturam clavi flavo-albidis; antennis, rostro, tibiis, tarsis membranaque nigris; marginibus posticis segmentorum ventris (quinto excepto), et signaturis segmentorum genitalium flavo-albidis. Pronoti lobo antico, præcipue in mare, convexo-præminulo, lævi; lobo postico, scutello hemelytrisque punctulatis; femoribus omnibus, præsertim anticis, subtus pone medium spinis nonnullis armatis. ♂ long. 9, lat. 3 millim.

Hab. Brasiliam borealem. (Manaos, 1874, *J. W. H. Trail.*)

3. *LARGUS LENTUS*, n. sp. Rufo-flavescens, maculis anticis et margine postico thoracis, necnon bucculis, antennis ad basin, maculisque exterioribus acetabulorum pallidioribus; pronoto antice et scutello ad basin obscurioribus; capite (tuberculis antenniferis et linea abbreviata inter oculos exceptis), antennis pedibusque nigris; sternis fusco-brunneis; parte basali metastethii et ventre testaceis, hujus limbo laterali et marginibus basalibus segmentorum in medio brunneis, lineolis longitudinalibus centralibus ad basin segmentorum nigris; pronoto fusco-punctato margine postico late brevi; scutello crebrius fusco-punctato; hemelytris remotius fusco-punctulatis, limbo exteriore subimpunctato; membrana hyalina; femoribus anticis subtus apicem versus spinis tribus armatis. ♀ long. 14, lat. 6 millim.

Hab. Brasiliam borealem. (Urubu Caxoeira, Rio Jurua, Nov. 6, 1874, *J. W. H. Trail.*)

It is with some hesitation that I bring forward this species as distinct from the variable *Largus humilis*, Drury. The hemelytra, however, are much more sparingly punctate, the front margin being almost impunctate, which (with the coloration unlike that of the various described varieties of *L. humilis*) seems to justify its specific separation.

Note.—The word “testaceous” seems to be rather indefinite in the meaning attached to it by various authors. By some a

reddish colour like that of red pottery is meant, by others an ochraceous yellow, with a slight brown tinge like sunburnt bricks, or "terra cotta." The latter is, I think, the correct interpretation of the term; and in that sense I use the word.

4. *ISCHNODEMUS INAMBITIOSUS*, n. sp. Niger, sericeus, opacus, capitis vertice, lobo postico pronoti, abdomine pedibusque subnitidis; hemelytris pallido-ochraceis, clavi basi et margine interiore late, corii apice latissime, margine apicali, angulo interiore, et suturæ clavalis parte tertia apicali, necnon macula longa ovali (discum membranæ implente et extus apicem versus corii sinuata) nigris; femorum apicibus imis, tibiis, tarsis, et antennarum articulo 3 basali apicibus plus minus flavido-brunneis; rostro, tibiis anticis, tibiis ceteris ad apicem, et tarsorum articulo tertio obscurioribus; abdominis lateribus nigris; ventre ad basin ferrugineo. Hemelytris abdomine maxime brevioribus, rostro metasterni medium attingente. ♂ long. 6, lat. 1 millim.

Hab. Brasiliam borealem. (Camaná, Rio Javary, Dec. 6, 1874, *J. W. H. Trail.*)

Allied, but not very closely, to *Ischnodemus tibialis*, Stål.

5. *PAMERA PAGANA*, n. sp. Subelongata, nigra, pallido-pilosula, parce punctata; antennis, rostro pedibusque testaceo-flavis, illarum articulo apicali fusco ante medium late albido-annulato; capitis clypeo et tuberculis antenniferis, pronoti collo antico et lobo postico brunneo-castaneis, hoc nigro-maculato; hemelytris sordide testaceo-flavis, clavo corioque fusco-punctatis; corii fascia pone medium irregulariter fracta, apice margineque apicali brunneo-fuscis; membrana sordide flavo-albida, inter nervos fusco-notata; tarsis ad apicem fuscis. ♂ long. 5, lat. $1\frac{1}{2}$ millim.

Hab. Brasiliam borealem. (Rio Solimoes, Nov. 13, 1874, *J. W. H. Trail.*)

Closely allied to *Pamera bilobata*, Say; but apparently distinct by its smaller stature, differently coloured antennæ and rostrum, the latter being also rather longer, by the coloration and especially the punctuation of the hemelytra, &c.

6. *LETHÆUS LEPIDUS*, n. sp. Oblongus, nigro-piceus, rude punctatus; pronoti disco et angulis posticis maculis parvis, scutelloque lineis tribus abbreviatis brunneo-flavis notatis; hemelytris irregulariter pallido-venosis, et maculis, una basali, altera intus medium versus necnon duabus extus prope apicem, flavo-albidis notatis; membrana dilute fusca dilutius venosa; antennis brunneis; pedibus pallido-flavo-brunneis. Femoribus anticis subtus prope apicem spinis 4 parvis, et cum tibiis omnibus spinulis setiformibus nonnullis armatis. ♀ long. 6, lat. $2\frac{1}{2}$ millim.

Hab. Brasiliam borealem. (Lower course of the Rio Jurua, Nov. 12, 1874, *J. W. H. Trail.*)

Allied to *Lethæus pallidinervis*, Stål, but, besides the darker colour, differs in having the anterior femora, which in that species are unarmed, furnished with four small teeth towards the apex.

ARADIDÆ.

HELENUS, n. g.

Corpus oblongum, retrorsum sensim dilatatum, supra cum antennis pedibusque valde villosum et setosum. *Caput* processu antico paullo producto, inerme, pone oculos sensim angustatum. *Antennæ* articulo primo maximam ad partem apicem capituli superante, articulis primo tertioque subæquilongis, articulo quarto quam dimidium tertii brevioribus. *Thorax* transversus, paullo ante medium transverse impressus, marginibus lateralibus emarginatis, margine basali ante scutellum sinuato. *Scutellum* triangulare, transversim rugosum, longitrossus carinatum, marginibus elevatis. *Hemelytra* apicem abdominis fere attingentia, parte coriacea quam scutellum longiore, membrana venosa venis anastomosantibus. *Pedes* mediocres. *Venter* convexiusculus; spiraculis a marginibus lateralibus remotis, spiraculis segmenti quinti ad margines illos appropinquatis. Sternum et venter sulco longitudinali interrupto instructa.

In facies and structure closely allied to *Hesus*, Stål, but differing in, amongst other points, the shaggy pubescence, structure of the membrane, and the interruptedly sulcate sternum and venter, which latter character brings it into relations with the division *Aradina*. Name in honour of Professor James William Helenus Trail.

7. *HELENUS HESIFORMIS*, n. sp. Ferrugineus, villositate ochraceo-brunnea vestitus; capite, antennarum articulo basali, femoribus, anulo apicem versus tibiarum, et segmentis genitalibus obscurioribus.
♂ long. 9, lat. pone medium $4\frac{1}{2}$ millim.

Hab. Brasiliam borealem. (Manaos, 1874, *J. W. H. Trail.*)

TINGITIDÆ.

8. *ACANTHOCHEILA ABDUCTA*, n. sp. Oblongo-ovata, nigra, opaca; hemelytrorum area costali necnon partibus totis pone abdomen fere vitreis, nigro-venosis; area costali fascia transversa picea abdominis apicem versus notata, et illic multo subtilius et irregulariter reticulata.
♀ long. 5, lat. 3 millim.

Hab. Brasiliam borealem. (Fonteboa, Oct. 13, 1874, *J. W. H. Trail.*)

The antennæ being broken, I cannot say whether all the joints are black.

HYDROMETRIDÆ.

9. *HYDROMETRA METATOR*, n. sp. Aptera, brunnea, opaca; antennarum articuli primi dimidio apicali, secundi apice et articulis 2 apicalibus (tertio ad basin excepto), rostro apice, femorum et tibiæ apicibus, necnon tarsis nigris. Capitis parte anteculari quam pars postocularis duplo longiore; antennis gracillimis corporis æquilongis. ♂ long. 18, lat. 1 millim.

Hab. Brasiliam borealem. (Uruçaca, Rio Jurua, Nov. 1, 1874, *J. W. H. Trail.*)

The genus (which is the same as *Limnobates* of some authors) has not before, I think, been recorded from S. America.

VELIIDÆ.

10. *VELIA VIVIDA*, n. sp. Aptera, nigra, pubescentia nigra brevissima et capillis longioribus brunneis vestita; pronoti margine antico macula fulva (macula majore triangulari argenteo-sericea oblecta et fere occulta) utrimque notata; abdominis dorsi segmentis 2 basalibus utrimque argenteo-maculatis; sterni lateribus ventreque argenteo-sericeis; coxis, trochanteribus, femoribus anticis basin versus, connexivo et ventre ad medium testaceo-brunneis; antennis fusco-brunneis; pedibus rostroque brunneis, illis subtus pallidioribus. Antennis longis gracilibus, articulis primo secundoque subæquilongis, quarto quam secundus brevior, quam quintus longior; pronoto longitrossus carinato, angulis posticis tuberculo acuto extrorsum retrorsumque vergente instructis; femoribus posticis pone medium subtus spinis 2 armatis. Long. $7\frac{1}{2}$, lat. $2\frac{1}{2}$ millim.

Hab. Nicaraguam.

11. *VELIA VIRGATA*, n. sp. Alata, fusco-brunnea, capillis concoloribus vestita; pronoti margine antico macula irregulari triangulari argenteo-sericea utrimque notata; lateribus sterni abdominisque argenteo-sericeis; antennis concoloribus articulo basali (apice excepto) pallidioribus; pedibus testaceo-brunneis, femorum macula basin versus subtus annulisque 2 latis, tibiæ annulis 3, tarsorum articulis ad apicem brunneis; connexivo testaceo-brunneo brunneo-maculato. Antennis sublongis gracilibusque, pronoto maxime convexo-elevato longitrossus carinato, angulis posticis tuberculo obtuso instructis. ♂ long. 5, lat. 1 millim.

Hab. Brasiliam borealem. (Igarapé da Caxoeira, near Manaos, June 4, 1874, "at light," *J. W. H. Trail.*)

NEOVELIA, n. g.

Corpus oblongum. *Caput* antice truncatum, deorsum modice productum. *Oculi* magni antrorsum convergentes sed haud approximati. *Antennæ* articulo primo valde curvato, quam secundus duplo longiore, secundo tertioque subæquilongis, quarto quam tertius paullo brevior. *Hemelytra* homogenea. *Pedes* mediocres, intermedii reliquis longiores; tarsi anticis biarticulatis, articulo primo minutissimo, articulo ultimo brevissimo, crasso, fusiformi ante medium biunguiculato; tarsi intermediis triarticulatis tibiis fere æquilongis, articulo primo minuto, articulis secundo tertioque æquilongis, ultimo fere ad basin fisso; pedibus posticis brevibus, tarsi uniarticulatis, tarsi anticis gracilioribus et paullo longioribus, articulo fusiformi, pone medium biunguiculatis; femoribus posticis incrassatis subtus pone medium serie spinarum armatis, tibiis posticis curvatis.

I am by no means sure that the hinder tarsi have not a very minute basal joint. The spines on the hinder femora gradually decrease in size, the first (*i. e.* the one nearest the middle of the femur) being the longest. The structure of the tarsi at once distinguishes *Neovelias* from *Microvelias* and other allied genera.

Name from *νέος* and *velia*.

12. *NEOVELIA TRAILII*, n. sp. Nigro-brunnea, pubescentia conferta concolori vestita, capite, antennis, pedibus, pronoto postice abdominisque lateribus parce nigro-setulosis; pronoto antice, prostethio, connexivo, ventre ad medium, antennarum articulo primo ad basin, coxis, trochanteribus, femorum anticorum macula et vitta subtus, femorum posticorum basi et spinis ad basin flavido-fulvis; pronoti carina centrali subelevata plus minus, præcipue antrorsum, rufo-fulva. ♂ long. 4, lat. $1\frac{1}{2}$ millim.

Hab. Brasiliam borealem. (Manaos, August 1874, "at light," *J. W. H. Trail*.)

13. *MICROVELIA MIMULA*, n. sp. Nigra, pubescentia conferta brevissima cinerea vestita; capitis vertice vittula geminata longitudinali rufescente male definita notato; pronoto intra marginem anticum fascia angusta latera haud attingente rufo-flava; hemelytris fuscis maculis 8 albidis ornatis; connexivo, pedibus, antennisque pallide testaceo-fulvis, articulis ad apicem plus minus fuscis. ♀ long. 2 millim.

Hab. Brasiliam borealem. (Manaos, August 1875, "at light," *J. W. H. Trail*.)

HYDROBATIDÆ.

14. *HYDROBATES REGULUS*, n. sp. Apterus, testaceo-rufus, sternis ventreque pallide brunneo-sericeis; thoracis linea longitudinali utrimque percurrente, abdominis dorso (linea media tenui excepta), linea utrimque prope latus ventris, antennarum articulo primo ad basin et apice imo, secundo ad apicem, tertio quartoque totis, rostro, oculis, femorum anticorum vitta infera, femorum posteriorum et tibi-
arum intermediarum apicibus imis, necnon tibiis posticis et tarsis omni-
bus fusco-brunneis. ♀ long. 20, lat. $2\frac{1}{2}$ millim.

Hab. Brasiliam borealem. (Labria, Rio Purus, Sept. 16, 1874, *J. W. H. Trail.*)

Differs from *Hydrobates erythropus*, Burm., both in size and colour. The apical angles of the connexivum of the sixth abdominal segment are also less produced.

15. *LIMNOGONUS* (?) *LOTUS*, n. sp. Brunneo-niger, nitidus, lævis, subtus sordide albido-sericeus, capitis marginibus anticis argenteo-sericeis; capitis lineolis 2 longitudinalibus obsoletissimis anteriori posteriorique abbreviatis, linea transversa basali utrimque dilatata, colloque, pronoti macula pone marginem anticum sordide rufo-testaceis; marginibus angustis lateralibus pronoti læte, anteriori obsoletius et sordide flavescens; lateribus prostethii et mesostethii, vittaque angusta metastethii et ventris prope margines laterales nigris; parte laterali nigra mesostethii linea abbreviata argenteo-sericea ornata; pedibus infuscatis ad apicem saturatoribus; acetabulis medium versus, trochanteribus et femoribus anticis ad basin pallido-testaceis, horum margine infero et macula postica pone medium, necnon tibiis ad apicem fuscis; antennis dilute brunneis, articulis primo secundoque ad apicem, tertio quartoque totis fusco-nigris. Antennis vix $\frac{2}{3}$ corporis æquilongis, articulo quarto quam secundus brevior, secundo $\frac{2}{3}$ primi æquilongo, tertio et quarto subæquilongis; rostro paulo pone marginem anticum prostethii productum; pronoto longitrossus obsolete carinato, ad marginem anticum prostethii distincte constricto, lobo antico ad medium depresso, lobo postico leviter convexo, angulis posticis elevatis; femoribus anticis crassiusculis; femoribus intermediis $\frac{3}{4}$ corporis æquilongis; tibiis intermediis quam femora paulo brevioribus; heme-lytris apicem abdominis paulo superantibus. ♂ ♀ long. 6-7, lat. $2-2\frac{1}{2}$ millim.

Hab. Brasiliam borealem. (Manaos, 1874, *J. W. H. Trail.*)

The comparative length of the antennæ-joints and the length of the rostrum are not in accord with the characters of *Limnogonus* as constituted by Stål. Still this and the following species may find a place in that genus in the meantime.

16. *LIMNOGONUS* (?) *LUBRICUS*, n. sp. *Limnogono* (?) *loto* similis sed minor, pronoto vix constricto, lateribus corporis haud vel obsolete nigro notatis, femoribus anticis linea longitudinali postica vice maculæ fuscae ornatis. Long. 5, lat. $1\frac{1}{2}$ millim.

Hab. Brasiliam borealem. (Manaos, August 1875, "at light," *J. W. H. Trail.*)

NAUCORIDÆ.

17. *PELOCORIS PROCURRENS*, n. sp. Pallide brunneo-testaceus, capituli postici et pronoti maculis nonnullis irregularibus, connexivi signaturis, femorum anticorum supra macula irregulari et posteriori basin versus vittula brunneo-fuscis; capite pronotoque obsolete, hujus disco distinctius et transversim rugosis; pronoti marginibus lateralibus angustissime reflexis; hemelytris minutissime punctulatis. ♂ long. 5, lat. $3\frac{1}{2}$ millim.

Hab. Brasiliam borealem. (Montealegre, 1873, *J. W. H. Trail.*)

Belongs to the same section of the genus as *binotulatus*, Stål; but is very much smaller and otherwise different.

THE ANNIVERSARY ADDRESS OF THE PRESIDENT,
Professor ALLMAN, M.D., LL.D., F.R.S.

*Recent Progress in our Knowledge of the Structure and
Development of the Phylactolæmatous Polyzoa.*

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[Read May 24, 1878.]

CONTINUING to adopt the practice which I have hitherto regarded as the most useful—that of making the Addresses delivered at the Anniversary Meetings of the Society reports of the progress of discovery in certain departments of zoological research—I have this year chosen for my subject the structure and development of the Phylactolæmatous Polyzoa, making the report extend over a period which dates from the publication of my own early researches on this group*.

Unless we include among them the genus *Rhabdopleura* †, all the Phylactolæmata are inhabitants of fresh water. One of their

* A Monograph of the Freshwater Polyzoa. Published by the Ray Society, 1856.

† I do not believe that *Rhabdopleura* has any real claims for admission into the group of the Phylactolæmata. The characters which at first sight